

DATE: Monday, January 27, 2003 Printable Copy Create Case

Set Name side by side		Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=OR			
<u>L10</u>	L7 same random same primer	0	<u>L10</u>
<u>L9</u>	L7 same multiple	0	<u>L9</u>
<u>L8</u>	L7 same peptide	0	<u>L8</u>
<u>L7</u>	L4 same clon\$	20	<u>L7</u>
<u>L6</u>	L4 same GAL same yeast	0	<u>L6</u>
<u>L5</u>	L4 same GAL4	0	<u>L5</u>
<u>L4</u>	L1 same (glucocorticoid or estrogen) same receptor	31	<u>L4</u>
<u>L3</u>	L2 same (glucocorticoid or estrogen) same receptor	0	<u>L3</u>
<u>L2</u>	L1 same (ampicillin near0 resistant)	48	<u>L2</u>
<u>L1</u>	cDNA near0 library	12856	<u>L1</u>

L8 ANSWER 1 OF 2 MEDLINE DUPLICATE 1

AN 97265407 MEDLINE

PubMed ID: 9111344 DN 97265407

- GRIP1, a transcriptional coactivator for the AF-2 transactivation domain TI of steroid, thyroid, retinoid, and vitamin D receptors.
- IIA Hong H; Kohli K; Garabedian M J; Stallcup M R
- CS Department of Pathology, University of Southern California, Los Angeles 90033, USA.
- NC DK43093 (NIDDK)
- SO MOLECULAR AND CELLULAR BIOLOGY, (1997 May) 17 (5) 2735-44. Journal code: 8109087. ISSN: 0270-7306.
- CY United States
- DTJournal; Article; (JOURNAL ARTICLE)
- LΑ English
- FS Priority Journals
- OS GENBANK-U39060
- EM 199705
- ED Entered STN: 19970523

Last Updated on STN: 19970523

Entered Medline: 19970515

After binding to enhancer elements, transcription factors require transcriptional coactivator proteins to mediate their stimulation of transcription initiation. A search for possible coactivators for steroid hormone receptors resulted in identification of glucocorticoid receptor interacting protein 1 (GRIP1). The complete coding sequence for GRIP1, isolated from a mouse brain cDNA library, contains an open reading frame of 1,462 codons. GRIP1 is the probable ortholog of the subsequently identified human protein transcription intermediary factor 2 (TIF2) and is also partially homologous to steroid receptor coactivator 1 (SRC-1). The full-length GRIP1 interacted with the hormone binding domains (HBDs) of all five steroid receptors in a hormone-dependent manner and also with HBDs of class II nuclear receptors, including thyroid receptor alpha, vitamin D receptor, retinoic acid receptor alpha, and retinoid X receptor alpha. In contrast to agonists, glucocorticoid antagonists did not promote interaction between the glucocorticoid receptor and GRIP1. In yeast cells, GRIP1 dramatically enhanced the transcriptional activation function of proteins containing the HBDs of any of the above-named receptors fused to the GAL4 DNA binding domain and thus served as a transcriptional coactivator for them. This finding contrasts with previous reports of TIF2 and SRC-1, which in mammalian cells enhanced the transactivation activities of only a subset of the steroid and nuclear receptors that they physically interacted with. GRIP1 also enhanced the hormone-dependent transactivation activity of intact glucocorticoid

receptor, estrogen receptor, and

mineralocorticoid receptor. Experiments with .

glucocorticoid receptor truncation and point mutants indicated that GRIP1 interacted with and enhanced the activity of the C-terminal AF-2 but not the N-terminal AF-1 transactivation domain of the glucocorticoid receptor. These results demonstrate directly that AF-1 and AF-2 domains accomplish their transactivation activities through different mechanisms: AF-2 requires GRIP1 as a coactivator, but AF-1 does not.

ANSWER 2 OF 2 L8 MEDLINE

DUPLICATE 2

- ΑN 96209838 MEDLINE
- DN 96209838 PubMed ID: 8643509
- GRIP1, a novel mouse protein that serves as a transcriptional coactivator TΙ in yeast for the hormone binding domains of steroid receptors.
- ΑU Hong H; Kohli K; Trivedi A; Johnson D L; Stallcup M R
- CS Department of Pathology, University of Southern California, Los Angeles, 90033, USA.

NC DK43093 (NIDDK)

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF SO AMERICA, (1996 May 14) 93 (10) 4948-52.

Journal code: 7505876. ISSN: 0027-8424.

CY United States

Journal; Article; (JOURNAL ARTICLE) DT

LΑ English

Priority Journals FS

OS GENBANK-U39060

EM 199607

AB

Entered STN: 19960726 ED

Last Updated on STN: 19960726

Entered Medline: 19960718

The yeast two-hybrid system was used to isolate a clone from a 17-day-old mouse embryo cDNA library that codes for a novel 812-aa long protein fragment, glucocorticoid receptor -interacting protein 1 (GRIP1), that can interact with the hormone binding domain (HBD) of the glucocorticoid receptor. In the yeast two-hybrid system and in vitro, GRIP1 interacted with the HBDs of the glucocorticoid, estrogen, and androgen receptors in a hormone-regulated manner. When fused to the DNA binding domain of a heterologous protein, the GRIP1 fragment activated a reporter gene containing a suitable enhancer site in yeast cells and in mammalian cells, indicating that GRIP1 contains a transcriptional activation domain.

Overexpression of the GRIP1 fragment in mammalian cells interfered with hormone-regulated expression of mouse mammary tumor virus-chloramphenicol acetyltransferase gene and constitutive expression of cytomegalovirus-betagalactosidase reporter gene, but not constitutive expression from a tRNA gene promoter. This selective squelching activity suggests that GRIM can interact with an essential component of the RNA polymerase II transcription machinery. Finally, while a steroid receptor HBD fused with a GAL4 DNA binding domain did not, by itself,

activate transcription of a reporter gene in yeast, coexpression of this fusion protein with GRIP1 strongly activated the reporter gene. Thus, in yeast, GRIP1 can serve as a coactivator, potentiating the transactivation functions in steroid receptor HBDs, possibly by acting as a bridge between HBDs of the receptors and the basal transcription machinery.

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FILE 'GENBANK' ENTERED AT 13:51:15 ON 27 JAN 2003

L15 S AF124093

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	FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 13:57:10 ON 27 JAN 2003
L2	54023 S CDNA (W)LIBRARY
L3	9 S L2 (P)(AMPICILLIN (W)RESISTANT)
L4	285 S L2 (P)(GLUCOCORTICOID OR ESTROGEN) (P) RECEPTOR
L5	0 S L4 (P) (AMPICILLIN OR KANAMYCIN)
L6	0 S L4 (P)GAL (P)YEAST
L7	8 S L4 (P)GAL4
L8	2 DUPLICATE REMOVE L7 (6 DUPLICATES REMOVED)